

THE FOUR STEPS of Effective Energy Management

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**How effectively are we
managing our energy costs
today?**

**It's time for a candid
review. ...**

**Are we selecting our activities
rationally, or by whim? ...**

**Are our economic criteria
realistic, or wishful thinking?**

...

**Are we paying enough
attention to risk? ...**

**Are we keeping our activities
profitable? ...**

Let's see ...

“ENERGY MANAGEMENT” MEANS LOWERING COST BY:

- **ELIMINATING UNNECESSARY ENERGY USE**
- **IMPROVING THE EFFICIENCY OF NEEDED ENERGY USE**
- **BUYING ENERGY AT LOWER NET PRICES**
- **ADJUSTING OPERATIONS TO ALLOW PURCHASING ENERGY AT LOWER PRICES**

THE FOUR STEPS

- (1) Identify ALL your opportunities.**
- (2) Prioritize your actions rationally.**
- (3) Accomplish your activities successfully.**
- (4) Maintain your activities.**

Note that, ...

the steps of effective energy management are the SAME as for the management of all productive functions.

STEP 1

Identify ALL Your Opportunities

- Before you take ANY action, find ALL your opportunities.
- The big difference of energy management is that the number of options to consider is much larger than for other important functions.

STEP 1

Identify ALL Your Opportunities

- The biggest hazard to energy management is the itch to do things before knowing all the options.
- Finding your best cost saving opportunities is like an Easter egg hunt. You don't know which eggs have the biggest prizes until you find them all.

Manager: “Mr. Wulfinghoff, please give us a ‘short list’ of ways to make our facility efficient.”

Wulfinghoff: “If I could do that, I wouldn’t have spent 20 years writing a book about energy efficiency that weighs 8 pounds.”

It is your responsibility as an energy manager to avoid spending your organization's money until you are certain where it can be spent most effectively.

A Competent Energy Manager:

- **Does not wait passively for proposals.**
- **Aggressively finds every opportunity within the facility for lowering energy cost.**
- **Relentlessly educates himself about every method of lowering energy cost that could apply to his facility.**

STEP 1

Identify ALL Your Opportunities

- Unlike most other business activities, you need a formal process, usually called an “energy audit”, to find all your opportunities.
- A good “energy audit” takes time and costs money, but not much of either, compared to your overall program.

STEP 1

Identify ALL Your Opportunities

- **Even today, competent energy audits are rare.**
- **This is the greatest deficiency of present energy management, resulting in continued high energy costs, waste of money on ineffective action, and inadequate respect for energy managers.**

The energy audit is the foundation on which your entire energy management program rests.

A deficient energy audit WILL cause a deficient energy management program.

STEP 1

Identify ALL Your Opportunities

- The energy auditor requires scientific and engineering education, broad practical experience, and solid judgement.
- The energy auditor needs a thorough understanding of ALL opportunities, not just a few.

Vendors can't do energy audits!

**The energy auditor should have
NO CONFLICTING INTERESTS.**

Umm, ...

Who did YOUR energy audit?

STEP 2

Prioritize Your Activities Rationally

- **The sequence of your activities is a major factor in the economic benefit of your energy management program.**
- **Consider all the criteria that matter, not just the economic criteria.**
- **Calculate with realistic numbers.**

STEP 2

Prioritize Your Activities Rationally

- **Limit consideration to measures of proven reliability.**
- **Consider the ability of your staff to accomplish and maintain each measure.**

The best cost saving measures usually are boring, i.e.: ordinary and inexpensive. The staff understand them easily.

The worst measures usually are ego gratifying, i.e.: “innovative”, complex, and expensive. The fact that you don’t really understand them is part of the thrill.

STEP 2

Prioritize Your Activities Rationally

- **Cost, by itself, is almost never a significant selection factor.**
- **Because, IF the measure works as expected, it provides a higher rate of return than most other investments.**
- **So, you can borrow the money, if necessary.**

The largest cost of energy conservation is FAILURE.

If an activity does not work, it will not pay back.

Therefore, ...

**the most important fiduciary
responsibility of the energy
manager is to
ELIMINATE FAILURE.**

STEP 3

Accomplish Your Activities Properly

- **Each cost saving activity is an independent project that requires its own knowledge, equipment, and people.**
- **The key to success is doing your homework before initiating each activity.**

STEP 4

Maintain Your Activities Endlessly

- **Almost nothing continues to operate successfully by itself.**
- **Each energy management activity requires continuing support.**
- **Integrate the maintenance of each activity seamlessly into your overall operations.**

So, ...

**How does YOUR energy
management program
compare to the best program
that is possible?**

**Keep tuning your program.
There is always room for
improvement.**

**Energy management
NEVER ENDS.**

And finally, ...

Your program will be a success when the top managers of your organization understand that energy management produces the highest profits in the organization.